DRAFT MEETING NOTES
Tech-to-Tech Meeting/Call with EPA - Surface Sediment Sampling Stations

Portland Harbor Superfund Site Pre-RD Investigation and Baseline Sampling
CERCLA Docket No. 10-2018-0236

Technical Phone Call, June 4, 2018, 2 to 4 PM PDT

Distribution List: Davis Zhen EPA, Pre-RD AOC Group, AECOM, Geosyntec

A summary of agreements, key discussions, and action items from tech-to-tech meeting held on June 4, 2018 by phone with EPA and Pre-RD AOC Group are presented below. The purpose of the meeting was to (1) review the archived surface sediment samples, (2) review the revisited stations and yet-to-be revisited stations identified by the Pre-RD Group, (3) discuss the proposed rerandomized upriver stations, and (4) discuss redline strikeout (RLSO) edits to revised surface sediment FSP sampling protocol.

Meeting Agenda/Topics –

- Joint review of archived samples
- Joint review of sampling locations that have been revisited
- Surface Sediment Re-randomization of Upriver Sampling
- Surface Sediment FSP revised protocol edits

ATTENDEES

EPA: On the phone: Davis Zhen, John Kern., CDM Smith (Scott Coffey, Howard Young, and Kyle Verkstrom)
Pre-RD Group: On the phone: Jenny Pretare, Anne Fitzpatrick, Keith Kroeger, Jason Condor, Linda Baker, Debbie Silva, Mat Cusma, Howard Cumberland, Scott Rowlands

SUMMARY / AGREEMENTS

1) EPA authorized analysis of the 14 archived surface sediment samples collected between April 26 and May 14, 2018. Additionally, EPA confirmed that the Pre-RD Group is not required to analyze the 12 archived (2-Bowl) samples. It was acknowledged that the Pre-RD Group has submitted the deeper recovery samples for chemical analysis.
2) EPA agreed with our list of revisited stations since our May 13, 2018 meeting following the new protocol (with the exception of B319) and provided approval for field teams to revisit the Group's remaining list of stations.
    a. The Pre-RD Group will provide additional information on station B319 (see notes below).
    b. EPA believes Station B069 will require revisiting because a sample was collected from Alt 1 location and it was determined that the Primary location could be sampled based on the revised protocol.
3) EPA agreed to edits made by the Pre-RD Group to the Surface Sediment FSP protocol during the call (Group to send revised RLSO edits to EPA for formal approval)
4) No decision or EPA approval yet of re-randomized upriver stations, however no issues were raised regarding the general approach used for re-randomizing the stations. Two concerns were discussed regarding upriver sampling: (1) TOC requirement; and (2) allowance for a longer offset

from sampling location versus recontouring the site data using a different approach that is tighter to the data. Group to send upriver TOC distribution map for EPA consideration, EPA is continuing their review.

DISCUSSION

Archived Samples – Pre-RD Group submitted to EPA on May 25, 2018, a table of archived sediment samples collected between April 26 and May 14, 2018, and recommendations for analysis. EPA is in-agreement with Pre-RD Group recommendation to analyze 14 of the 28 archived samples. The 14 archive samples, authorized for chemical analysis and already sent to the labs, were characterized as "thick" recovery attempts containing >20cm recoveries. They are all 3-point composites, with the exception to SMA sample location S078. Group confirmed that we have enough sample volume to run full suite analytical testing for S078.

The remaining 12 archived samples were generally "thin/shallower" recovery attempts (collected as part of the 2-Bowl method) and do not require analysis. These 12 archive samples will be properly discarded by the labs.

Revisited Locations – The Group discussed the "*Sample Location Revisited Tracking Table*" sent by the Pre-RD Group to EPA on June 1, 2018. EPA mostly agreed with the (a) the stations already revisited and (b) approved going back to selected stations listed by Pre-RD Group that have not been revisited. In addition, EPA mentioned that they had also developed a list of candidate locations for the Pre-RD Group to revisit based on their review of sample logs, field notes, and tracking table information provided by the Pre-RD Group.

Referring to EPA's candidate list, that the Group did not have for review, EPA discussed additional sample locations which does not appear on the Pre-RD Group's "*Sample Location Revisited Tracking Table*." For example, EPA would like the group to resample B069 because Alt 1 location was selected for testing (concerned with "hunting" for silts). EPA will send their candidate list for Group review.

Surface Sediment FSP Edits – On May 31, 2018, the Pre-RD Group received EPA's RLSO comments of the Surface Sediment FSP Rev 1 containing the revised protocol. The Pre-RD Group suggested a few additional limited revisions to this text, based on a feedback from the field teams. RLSO revisions to the FSP were modified during the call and verbally accepted by the Pre-RD Group and EPA. The Pre-RD Group will submit a revised FSP with RLSO as discussed on the call.

Surface Sediment Re-randomization of Upriver Samples – The Pre-RD summarized the process for developing the re-randomized sampling approach, referencing the FSP addendum and figures submitted to EPA on May 23, 2018. EPA did not present any objections to the gridding methodology used to rerandomize the upriver samples, nor the exclusion of hard bottom areas.

- The sample grids were discussed and were generally agreed upon. The size of the grids was not considered an issue and the green "soft sediment areas" could be smaller. John K. had requested time to review the figures as he had not had a chance to review them prior to the call.
- TOC criterion was discussed. It was not fully understood by EPA why TOC was so important for determining samples for analysis. The Pre-RD Group explained that is already part of the approved Work Plan and its importance to analyze for TOC.
    - Box plot of TOC distribution within the Site is presented below.
    - Upriver maps with existing TOC plotted with PDI proposed locations are also presented – see separate PDF.

- The Pre-RD Group presented the plan and rationale for using a larger sampling radius. EPA expressed concern and suggested a different approach with delineating areas closer-in to fine-grained areas identified by probing/grab samples. Since John Kern had not looked at the provided maps, further discussion of the groups proposed approach was postponed.
- EPA would like more time to review the rerandomized upstream stations provided in the draft FSP addendum and another technical call scheduled after EPA had a chance to further review the figures in the memo, approach of extending the sampling radius, and mapping of TOC.

Schedule – EPA requested advance notice when a stoppage to sampling is planned. The PDI Group indicated it would strive to provide notification by COB on Weds for sampling the following week.

ACTION ITEMS

1. FSP Edits: Group will send EPA a RLSO of Surface Sediment FSP revised per discussion during the call
2. Revisit Stations: EPA has developed a list of candidate locations to revisit based on their review of sample logs and the tracking table provided by the Group on a weekly basis. EPA acknowledged that they will share their list of candidate sample locations with the Pre-RD Group.
    a. The Pre-RD Group will review this list. In particular, the Group will eview B069 primary station and evaluate EPA request to resample this location.
    b. Provide explanation for B319 (provided below)
    c. Also check sample S069.
3. Tracking Table: Fix the master tracking and locations revisited tables for station B315 attempts. It was determined that the tables incorrectly reference attempt 3 as being composted into the sample; however, attempt 3 was rejected to no overlying water being present. The correct attempts composited into the sample are 1, 2, and 4. (updated tables to be provided to EPA via email correspondence and uploaded on Friday to the SharePoint site)
4. Rerandomized Upriver Stations: Provide TOC data to EPA (provided below and attached maps)
5. Anomaly Requests: EPA review the Anomaly Request forms (#1 to #18) currently posted on SharePoint and approve.
6. General: The Group will continue to review field logbooks for more documentation of sample acceptance prior to April 21. The review will identify sample acceptance at locations compared to the revised protocol and determine if sample locations require further discussion with EPA.

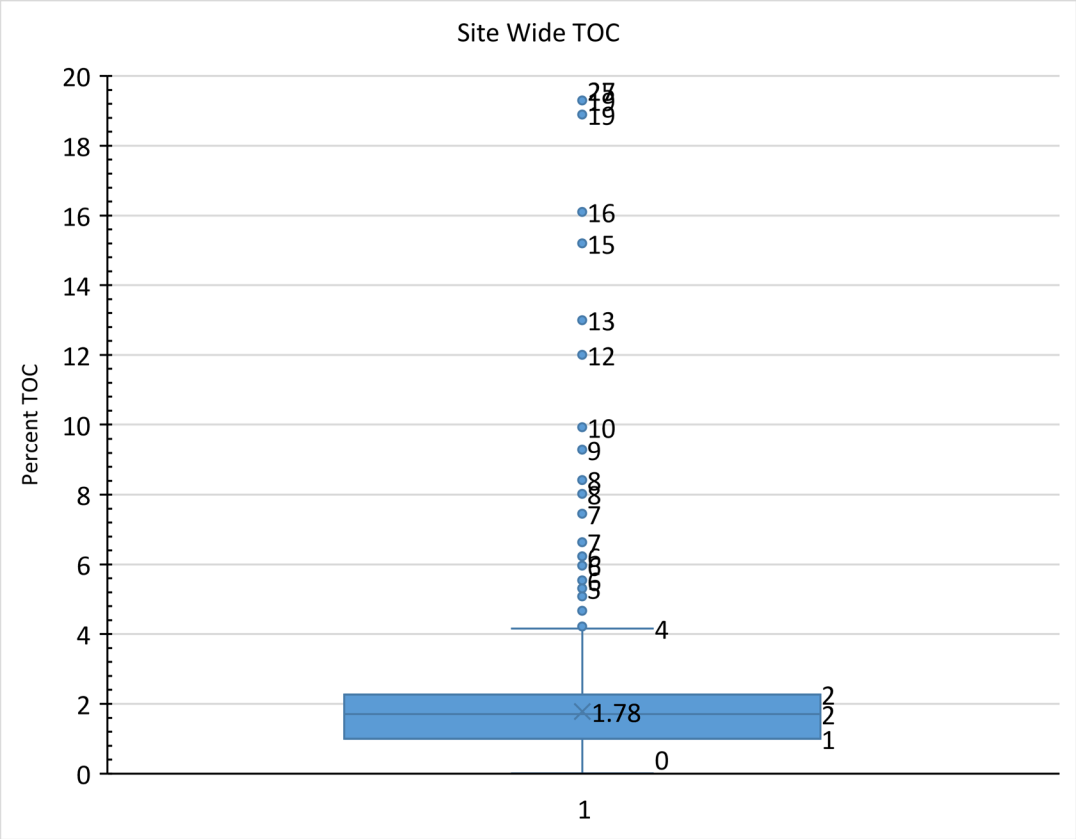
Note: Follow-up Clarification Regarding Revisited Station B319:

The sample location is characterized as a Substrate Bin 3 type according to the revised protocol. This station was sampled correctly, according to the June 6, 2018 updated revised protocol as it appears in the Surface Sediment FSP (Section 4.4). For Substrate Bin 3, the protocol states "*Up to 6 attempts at primary location. Using all weights, retain 3 deepest bucket attempts within 50 ft radius of primary location. If composite avg >10 cm depth then analyze*." The field teams should keep sampling (up to 6 attempts) to try and collect > 20 cm recoveries. At B319, the field team made four successful attempts with recoveries of 20, 20, 18, and 21 cm, respectively. Since attempts 1, 2, and 4 obtained the target depth of > 20cm these three grabs were composited as the representative sample. The 3rd attempt was discarded following the revised protocol. The Pre-RD Group followed the proper protocol for Substrate Bin 3.

Note: Follow-up Clarification Regarding TOC Data Distribution within the Site:

The site-wide average TOC in surface sediment is 1.78 percent and the median is 1.71 percent. As shown in the Figure 1 below, the 25th and 75th quartiles respectively are 1 and 2%. These values are slightly higher for surface sediment samples located outside of the SMA footprints (areas not designated for active remediation).

Figure 1. Site-wide TOC Distribution



Last revised by KK and AGF on June 7, 2018; saved in Geosyntec P:\Projects\Portland Pre-Design PNG0767A\200 Correspondence\220 Meetings\with EPA\2018.06.04 (rerandom_revisit)